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ABSTRACT

This study investigated the Center of Excellence Program (COE) comprised of 24 Lyndhurst and Master of Arts in Teaching (MAT) Scholars at Memphis State University. The major purpose was to delineate personality characteristics prominent among the scholars who participated in a novel fifth year academic and clinical program for certification of teachers and to compare their characteristics with a group of 36 successful teachers in a regular M. Ed. program, and with a group of Outstanding Teachers in Higher Education. Through descriptive methods utilizing ANOVA, Multiple R, Regression Analysis, and Pearson Product Moment Correlation, our findings suggest that the fifth year program represented by COE scholars has attracted subjects with a number of characteristics commensurate with teachers who are successful in their teaching. There were some differences favoring the COE subjects over the M. Ed. classes. They had significantly higher Miller Analogies Test scores, showed more imaginativeness, were more intuitive, and more abstract in their thinking. It is suggested that these are important characteristics to consider in recruiting quality teachers for schools of tomorrow. (Author)

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Personality and Motivation Variables in Tomorrow's Teachers: The Lyndhurst Scholars

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Abstract

PERSONALITY AND MOTIVATION VARIABLES IN TOMORROW'S TEACHERS: THE LYNDHURST SCHOLARS

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This study investigated the Center of Excellence Program comprised of 24 Lyndhurst and M.A.T. Scholars at Memphis State University. The major purpose was to delineate personality characteristics prominent among the scholars who participated in a novel fifth year academic and clinical program for certification of teachers and to compare their characteristics with a group of 36 successful teachers in a regular M. Ed. program, and with a group of Outstanding Teachers in Higher Education. Through descriptive methods utilizing ANOVA, Multiple R, Regression Analysis, and Pearson Product Moment Correlation, our findings suggest that the fifth year program represented by C.O.E. scholars has attracted subjects with a number of characteristics commensurate with teachers who are successful in their teaching. There were some differences favoring the C.O.E. subjects over the M. Ed. classes. They had significantly higher Miller Analogies Test scores, showed more imaginativeness, were more intuitive, and more abstract in their thinking. It is suggested that these are important characteristics to consider in recruiting quality teachers for schools of tomorrow.

PERSONALITY AND MOTIVATION VARIABLES IN TOMORROW'S TEACHERS: THE LYNDHURST SCHOLARS

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Purpose

Alternative methods of training and educating future teachers appears to be a salient topic for professional educators and legislators as well as parents and critics of education in general. Memphis State University's College of Education, during the summer of 1985, introduced two alternative models for the education and training of teachers that essentially gives emphasis to the viability of a fifth year of study and clinical work as opposed to the traditional four year degree in Education. For some time to come, the big question as to whether this is the best and most productive way to train our teachers will be with us. Whatever the final decision as to the effectiveness of alternative methods, the establishment of the Lyndhurst Fellows Program, a privately funded experimental fifth year program that leads to certification, and the Master of Arts in Teaching Program, a 14 month program that lends to certification and a Master's degree, offered an excellent opportunity to study presage factors of teachers and future teachers. Presage, of course, represents part of the triumvirate of teacher effectiveness studies of presage-process-product. The two programs mentioned became part of the Center of Excellence, herewith referred to as the COE group.

It would appear from literature citations that teacher effectiveness has been almost totally concerned with process and product. Gillis and Moll (1984) cited 723 items in their bibliography. Unfortunately, only a few dealt with presage, and very few dealt specifically with personality factors. Consequently, what we know about personality factors of teachers appears to be quite limited compared to teaching effectiveness as measured by process and product. Certainly a major purpose of this study was to see how personality factors of the Lyndhurst and MAT Scholars would compare with a group (two classes) of successful teachers who were pursuing a Master's degree in

Education through a traditional M.Ed. program, and a group of University educators who had been chosen and rewarded as Outstanding Teachers. In addition, we wondered if certain personality factors and personality types bear a significant relationship to the scores made on the Miller Analogies Test, a test required of all entrants to Master's degree programs.

Gleanings from the literature provided us with a few insights as to how our study should proceed. Easterly (1984) used interview techniques on twenty-four outstanding elementary teachers to suggest that risk-taking, assertiveness and independence were related to good teaching. Unfortunately, no instrumentation was used to validate the intuitions gained from interview. An article by Lindsay (1984) suggested that the literature mentioned five personality factors which appeared regularly in studies, viz., self-confidence, informality, enthusiasm, responsiveness and creativity. A similar study by Marks (1985) related to "best teachers" as having similar characteristics. Again, we were not aware of acceptable instrumentation that measured these characteristics other than creativity which can be measured by the Torrance Test of Creativity; but, there may be a serious question as to whether creativity is a personality characteristic as opposed to being an independent factor. We certainly agree with Ornstein's (1985) premise that "our research on teacher effectiveness must be controlled to show causal relationships." We would attest, however, that both instrumentation and design would have to improve to bring about such a realization.

Credence was given to the intellect as a presage variable in the study by Peters (1982). Using the Verbal Reaction Behavior Log to record teacher behavior related to learning outcomes, he coded the behavior as cognitive, skill, and affective. He used the Omnibus Personality Inventory to classify teacher tolerance for ambiguity and preference for complexity. Through ANOVA, he was able to establish that the "high complexity teacher appears to be

capable of establishing greater interaction in the classroom." Such high complexity teachers tend to have intellectual preferences that are more challenging to students.

Erdle, Murray, and Rushton (1985) used path analytic methods to evidence the belief that presage variables such as personality characteristics affect process as well as product. Their study demonstrated that "approximately 50% of the relationship between personality and teaching effectiveness was mediated by classroom behavior." In a related study, Phillips, Carlisle, Hautala, and Larson (1985) used the Sixteen Personality Factor Test to posit that "Teachers who scored high in assertiveness, questioning and imaginativeness tended to provide their students with more time on task and a higher quality of practice time. Finally, students of teachers who scored high in independence, assertiveness, questioning and imaginativeness, learned more than did students of teachers who were low in these personality traits."

From what the literature yielded in the way of personality characteristics as presage variables, there were two we considered to be most important because of instrumentation and analyses. The first, by Harris, Halpin, Halpin, and Roach (1982), utilized the Sixteen Personality Factor Test, the Tennessee Self-Concept Scale, and the Pupil Control Ideology Form and ran Stepwise Multiple Correlations to show that humanistically oriented teachers were higher in self-concept, more realistic, imaginative and self-directed. The second, by Pfeifer (1983), utilized The Myers-Briggs Type Inventory to evidence significant relationships between judgment and secondary student success in teaching, and between sensing and judgment and elementary student success in teaching.

Method

Sampling. Sixty students enrolled in College of Education course work served as subjects. Twenty-four of the students were enrolled in the Center

of Excellence Program (9 in Lyndhurst, 15 in MAT). Thirty-six (2 classes) were enrolled in the traditional M. Ed. or Master of Arts in Education Program, and served as a comparison group to COE Lyndhurst-MAT. An additional comparison group of 10 Memphis State University instructors previously selected and rewarded as Outstanding Teachers was utilized.

The average age for the entire sample was 36.2 years. The mean age for COE was 31.8 years, 34.9 years for the M. Ed. group, and 42.1 for the Outstanding Teachers group. All of the M. Ed. group were experienced in teaching. Only two of the COE subjects had experience in teaching and that was in a noncertified position. The COE subjects held baccalaureate degrees from Colleges of Liberal Arts. All of the M. Ed. subjects held teacher certificates in the state of Tennessee. The mean score on the Miller Analogies Test for COE was 62.2. For M. Ed. subjects, it was 42.2. Total sample means on the Miller Analogies Test was 50.6. There were 8 males and 52 females in the sample.

Instrumentation

All subjects in the study were administered the four instruments chosen to elicit measures of personality factors, personality type, motivation, and a measure of abstract thinking ability. The 16 PF utilizes a Cattell type general intelligence scale and 15 self-report personality scales. The Myers-Briggs Type Indicator measures an individual's perceptual preferences that may be categorized into four indices (Extraversion-Introversion, Sensing-Intuition, Thinking-Feeling, Judgment-Perception) that may result in 16 types. A dynamic structure profile is accomplished with measures on the Motivation Analysis Test. The structures include: career, home-parental, fear, narcism-comfort, superego, self, mating, pugnacity-sadism, assertiveness, and sweetheart-spouse. Terman's Concept Mastery Test was the final instrument utilized. It is considered to be a measure of one's ability

to deal with high level abstract ideas.

Test results were placed on data sheets and a data file created on the Sperry Univac 1100 Computer. Statistical Package for the Social Sciences (SPSS) was utilized to produce correlational data, regression analyses, ANOVA, and difference scores.

Results and Interpretation

The following questions were posed and answered by analyses, statistical and otherwise:

Q. 1. On numerous measured factors of personality, what differeces exist between COE Scholars and two M. Ed. comparison classes?

One-way ANOVAs were run on each of the variables produced by the instruments. Scheffe's procedure was used as a follow-up method because the groups were unequal in size. As show in Table 1, significant differences were found on the Miller Analogies Test, and in Table 2, significant differences were found on factor M (practical vs. imaginative) of the 16 P.F. Test. These results suggest that COE students, if for no other reason than selection standards, are bringing to the alternative teacher training program a much stronger set of academic preparedness than their traditional counterparts. They scored consistently high on the Concept Mastery Test, but the level of significance could not be maintained by Scheffe's Test. Additionally, while their opposites in the M. Ed. program factor as practical in orientation, the COE students lean more toward imaginativeness and/or inventiveness. While other factors measured tended to approach significance, the reduced sample size could have been a factor in their not reaching statistical significance.

Insert Tables 1 and 2 about here

Q. 2. Are there significant differences on each of the measured factors of

motivation including the factors of total motivation (total personal interest) and total integration?

Significance was not reached between the 3 groups on the factors measured by the Motivation Analysis Test. A priori, one may reason that such results augur well for COE students in that their motivation is similar to that of active, successful teachers in the M. Ed. program. The sten scores of each variable were examined and found to be in the average or above range which suggests above average motivation on all but a few related variables where low scores are desirable. For instance, it was found that scores were below average on Fear, suggesting that the entire sample was not motivated out of apprehension. The same held true for the measure of Pugnacity-Sadism, suggesting that our entire sample is seeking peaceful status as opposed to hostility.

Q. 3. Which personality factor or factors best predict scores on the Concept Mastery Test, a measure of abstract mental ability?

A stepwise regression analysis was accomplished on all the variables with only one reaching significance. In Table 3, we see the significant predictive relationship between factor M (practical vs. imaginative) of the 16 PF on the total score of the Concept Mastery Test. Foregoing any interest in any causal relationship between the two variables, it is believed the persuasion toward imaginativeness evidences a greater propensity for dealing with higher levels of thought. If we are to believe the research findings of Peters (1982) that teachers endowed with higher order thinking or complexity tend to create greater classroom interaction, then our significant finding in Table 3 may have considerable import for those who recruit quality teachers for quality education.

Insert Table 3 about here

Q. 4. Which psychological type (MBTI) best predicts total motivation?

Although One-Way ANOVAs failed to show significant differences among the 8 individual types of E, I, S, N, T, F, J, P,, Pearson r's did reveal two areas of significant predictive strength when main categories were used. Table 4 shows that Extraversion-Introversion, as a category, predicts Total Motivation scores at the .05 level. Sensing-Intuitive was even more significant at the .01 level. This finding suggests that should one be engaged in the selection of candidates for teacher training or placement, it is probable that more highly motivated individuals would come from the E-I and S-N categories than T-F and J-P. This should be an important consideration for those who believe one aspect of good teaching involves good motivation.

Insert Table 4 about here

Q. 5. In terms of MBTI psychological type, how different is the COE group from the combined classes of the M. Ed. group and the Outstanding Teachers Group?

Table 5 depicts the MBTI type for the three groups. COE typed Extraverted, Intuitive, Feeling, Judgmental. M. Ed. typed Extraverted, Sensing, Feeling, Judgmental. Outstanding Teachers typed Extraverted, Intuitive, Thinking, Judgmental.

Insert Table 5 about here

The only difference between the COE and M. Ed. Groups was on Intuition. The COE group prefers to look for possibilities and relationships while the M. Ed. group, in a more practical vein, is more comfortable dealing with known

facts. Both are conscientious, outgoing, and aware of other people's feelings. Whereas the COE group would thrive on independence, the M. Ed.'s would probably need more encouragement and praise. While somewhat different, the profiles of the COE and M. Ed. groups are commensurate with previous research findings (Pfeifer, 1983) relative to type and success in teaching. Thinking was the type for Outstanding Teacher that differed mainly from the other two groups. They match the COE group very well except on that one variable, and their behavior would be expected to parallel the COE except that they sometimes exhibit more confidence than their experience in an area warrants.

Q. 6. Which personality measures of the COE group best predict scores on the Miller Analogies Test?

As shown in Table 6, among all of the personality factors involved, the best predictor of the conceptual ability measured by the Miller Analogies Test is Factor B of the 16 PF. This factor measures Concrete vs. Abstract reasoning preferences. Higher scores on factor B of the 16 PF should warrant the attention of recruiters and administrators in that selection of teachers with such personality preference would most likely necessitate placing the teachers in teaching-learning situations where the emphasis is more on complex, abstract issues than practicalities.

Insert Table 6 about here

Q. 7. How different are the COE Scholars from Outstanding Teachers on the MBTI and Motivation Analysis Test?

There were no significant differences between the two groups on the MBTI. However, Table 7 delineates Motivation Analysis Test variables which indicate

favor of COE on the Conflict Score of the Motivation Analysis Test. Superior scores on Total Integration, Career, Home and Superego measures on the part of the Outstanding Teachers may be interpreted to imply they are more realistically involved in the mature role, have a stronger acceptance of lawful society and other superego functions, and have more mature grasp of the reality principle. However, because of their significant rating on Home, they may not have as successful emancipation patterns as COE and M. Ed. subjects. One may expect the Outstanding Teachers to be superior on the factors indicated in Table 7, if for no other reason than more mature age and having experienced other educational practices before teaching and researching at the Higher Education level. The significant Conflict score by the COE subjects indicates uncertainty or tension regarding goals. Theirs is a Liberal Arts background, consequently they would be expected to experience tension and uncertainty over a new field of endeavor in education.

Insert Table 7 about here

Discussion

The Center of Excellence programs, comprised of Lyndhurst and MAT Scholars, afforded an opportunity to focus a study on personality variables prominent among subjects who participated in a novel, fifth year academic and clinical program for certification of teachers. Our main purpose was to compare their characteristics with a group of successful teachers who had engaged themselves in a regular M. Ed. program and with a group of teachers at the Higher Education level whose success had been recognized by having been named as Outstanding Teachers. A second purpose was to provide evidence of instrumentation that may serve as effective selection devices for those who will recruit and train tomorrow's teachers.

Our findings suggest that the fifth year program represented by COE scholars has attracted subjects with a number of characteristics commensurate with those who are successful in their teaching.

There were some differences favoring the COE subjects over the M. Ed. classes. They had significantly higher Miller Analogies Test scores, showed more imaginativeness, were more intuitive, and more abstract in their thinking. We suggest these are important characteristics to consider in recruiting quality teachers for schools of tomorrow.

Table 1

One-Way ANOVA

Miller Analogies Test

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	4597.6958	2298.8479	7.4191	.0016*
Within Groups	45	13943.5542	309.8568		
Total	47	18541.2500			

*Sig. at .01 level

Scheffe's Procedure

Mean	Group	GRP 1	GRP 2	GRP 3
41.9167	1 (Class #1 M. Ed.)			
42.6875	2 (Class #2 M. Ed.)			
62.2000	3 (COE Lyndhurst-MAT)	*	*	

* Denotes pairs of groups significantly different at .05 level.

Table 2

One-Way ANOVA

16 P.F. Test

Factor M (Practical vs. Imaginative)

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	98.8929	46.4465	4.9421	.01 *
Within Groups	57	535.6904	9.3981		
Total	59	628.5833			

* Sig. at .01 level

Scheffe's Procedure

Mean	Group	G R P 2	G R P 1	G R P 3
11.5789	2			
12.7647	1			
14.5000	3	*		

* Denotes pairs of groups significantly different at .05 level

Table 3

Stepwise Regression Analysis

16 PF

Factor M (Practical vs. Imaginative)

Multiple R	.37334
R Square	.13938
Adjusted R Square	.12454
Standard Error	37.74815

One-Way ANOVA

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob
Regression	1	13384.67507	13384.67507	9.39	.0033*
Residual	58	82645.50826	1424.92256		

*Sig. at .01 level

Table 4

Pearson Product Moment Correlation

MBTI Type with Total Motivation	
MBTI Type	Total Motivation
Extraversion-Introversion	.2033
	N = 70
	P = .04 *Sig. at .05
Sensing-Intuitive	.2540
	N = 70
	P = .01 *Sig. at .01

Table 5

Differences in MBTI Psychological Types

	E	I	S	N	T	F	J	P
COE Group (Lyndhurst-MAT)	X			X		X	X	
M. Ed. Group (Two Classes)	X		X			X	X	
Outstanding Teachers	X			X	X		X	

E	I	S	I	T	F	J	P
X	N	E	N	H	E	U	E
T	T	N	T	I	E	D	R
R	R	S	U	N	L	G	C
A	O	I	I	K	I	M	E
V	V	N	T	I	N	E	P
E	E	G	I	N	G	N	T
R	R		V	G		T	I
S	S		E			A	V
I	I					L	E
O	O						
N	N						

Table 6

Stepwise Regression Analysis

16 PF

Factor B (Concrete vs. Abstract)

Multiple R	.51363
R Square	.26382
Adjusted R Square	.22292
Standard Error	17.79119

One-Way ANOVA

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob
Regression	1	2041.72691	2041.72691	6.45042	.0205*
Residual	18	5697.47309	316.52628		

*Sig. at .05 level

Table 7

One-Way ANOVAs

For Significant Differences on MBTI and Motivation Analysis Test

Group 1 COE

Group 2 Outstanding Teachers

						Pooled Variable Est.		
	Group	Number		Std.	Std.	T		2 Tail
Variable	No.	Cases	Mean	Dev.	Error	Value	D.F.	Prob.
Total								
Integration	1	24	2.3333	7.227	1.475			
	2	10	9.9000	8.711	2.755	-2.62	32	.013*
Career	1	24	3.9583	2.177	.444			
	2	10	6.2000	1.398	.442	-2.99	32	.005*
Home	1	24	4.5000	2.106	.430			
	2	10	6.1000	2.025	.640	-2.04	32	.050*
Superego	1	24	3.5833	1.954	.399			
	2	10	5.3000	1.703	.539	-2.42	32	.022a
Total	1	24	56.4583	7.616	1.555	2.38	32	.024a
Conflict	2	10	49.4000	8.566	2.709			

* Sig. at .01

a Sig. at .05

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